

Liverpool John Moores University

Title: Physics
Status: Definitive
Code: **3513IFYSP** (119751)
Version Start Date: 01-08-2017

Owning School/Faculty: Academic Portfolio
Teaching School/Faculty: Academic Portfolio

Team	Leader
Kamila Tomczak	Y

Academic Level: FHEQ3
Credit Value: 24
Total Delivered Hours: 121.5
Total Learning Hours: 240
Private Study: 118.5

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	60
Seminar	30
Tutorial	10
Workshop	20

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Practical and report - 750 words	50	
Exam	AS2	Exam	50	1.5

Aims

To provide students with the knowledge and understanding of the principles of atomic physics, materials, heat and gases, oscillations and waves in preparation for undergraduate degrees in Engineering.

To develop students' knowledge of Physics so that they may apply this to real

situations in Engineering.

To introduce students to Electricity and Electronics.

To develop independent study skills in preparation for progression to Engineering degree programmes.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate an appreciation of the theoretical structure of the subject by applying this to the techniques of experimental physics.
- 2 Explain the main ideas of electricity and electronics and apply them to practical problems met in engineering, for example, instrumentation.
- 3 Carry out experiments in electricity and electronics in order to confirm theory and present a laboratory report.
- 4 Demonstrate an awareness of the concept of fields and their effects and apply the theoretical framework to solve mathematical and practical problems.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Practical	1	3
Exam	2	4

Outline Syllabus

Waves, including properties, sound, reflection and refraction, electromagnetic waves and photo-electric effect.

Matter – materials, heat and gases, structure of the atom

Electricity and Electronics

Fields and their effects

Data analysis

Learning Activities

Lectures and workshops will comprise didactic teaching alongside continuous formative assessments such as in-class tests and problem-solving scenarios. Homework will support these activities, and should guide the student towards the development of self-study.

Notes

None